cuteneſs, receiving the fluid faſter than its oppoſite can diſcharge it at equal diſtances, it retires from the electrified plate, and draws nearer to the unelectrified plate, till it comes to a diſtance where the diſcharge can be exactly equal to the receipt, the latter being leſſened, and the former encreaſed; and there it remains as long as the globe continues to ſupply freſh electrical matter. This will appear plain, when the difference of acuteneſs in the corners is made very great. Cut a piece of *Dutch* gold (which is fitteſt for theſe experiments on account of its greater ſtrength) into the form of FIG. 10 the upper corner a right angle, the two next obtuſe angles, and the loweſt a very acute one; and bring this on your plate under the electrified plate, in ſuch a manner as that the right-angled part may be firſt raiſed (which is done by covering the acute part with the hollow of your hand) and you will ſee this leaf take place much nearer to the upper than to the under plate; becauſe, without being nearer, it cannot receive ſo faſt at its right-angled point, as it can diſcharge at its acute one. Turn this leaf with the acute part uppermoſt, and then it takes place neareſt the unelectrified plate, becauſe otherwiſe it receives faſter at its acute point than it can diſcharge at its right-angled one. Thus the difference of diſtance is always proportioned to the difference of acuteneſs. Take care in cutting your leaf to leave no little ragged particles on the edges, which ſometimes form points where you would not have them. You may make this

figure

figure ſo acute below and blunt above, as to need no under plate, it diſcharging faſt enough into the air. When it is made narrower, as the figure between the pricked lines, we call it the *Golden Fiſh*, from its manner of acting. For if you take it by the tail, and hold it at a foot or greater horizontal diſtance from the prime conductor, it will, when let go, fly to it with a briſk but wavering motion, like that of an eel through the water; it will then take place under the prime conductor, at perhaps a quarter or half an inch diſtance, and keep a continual ſhaking of its tail like a fiſh, ſo that it ſeems animated. Turn its tail towards the prime conductor, and then it flies to your finger, and ſeems to nibble it. And if you hold a plate under it at ſix or eight inches diſtance, and ceaſe turning the Globe, when the electrical atmoſphere of the conductor grows ſmall, it will deſcend to the plate and ſwim back again ſeveral times with the ſame fiſh-like motion, greatly to the entertainment of ſpectators. By a little practice in blunting or ſharpening the heads or tails of theſe figures, you may make them take place as deſired, nearer, or farther from the electrified plate.

27. It is ſaid in ſection 8, of this paper, that all kinds of common matter are ſuppoſed not to attract the electrical fluid with equal ſtrength; and that thoſe called electrics *per ſe*, as glaſs, &c. attract and retain it ſtrongeſt, and contain the greateſt quantity. This latter poſition may ſeem a paradox to ſome, being contrary to the hitherto received opinion; and therefore I ſhall now endeavour to explain it.

28. In